

## Abstract of the Disclosure

A radio transmitter includes a gain compensation controller that derives the gain variation of the power amplifier from its bias voltage determined in response to its desired output power level, and that derives the control voltage of at least one of variable gain amplifiers from the gain variation. A variable gain amplifier gain controller applies the control voltage to the variable gain amplifier, thereby compensating for the gain variation of the power amplifier. The radio transmitter can solve a problem of a conventional radio transmitter in that it is unavoidable for the power amplifier to bring about the gain variation when its bias voltage is varied in response to the output power level.